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\*\*\* YOU HAVE NEW MAIL \*\*\*

=> s mass spectromet?

L1 308916 MASS SPECTROMET?

=> s l1 and mass tag?

L2 156 L1 AND MASS TAG?

=> s 12 and librar?

L3 40 L2 AND LIBRAR?

=> s 13 and monomethoxytrityl?

L4 2 L3 AND MONOMETHOXYTRITYL?

=> d 14 bib abs 1-2

L4 ANSWER 1 OF 2 USPATFULL

AN 2002:63679 USPATFULL

TI Compositions and methods for enhancing hybridization and priming specificity

IN Van Ness, Jeffrey, Seattle, WA, United States Tabone, John C., Bothell, WA, United States Garrison, Lori K., Seattle, WA, United States

PA QIAGEN Genomics, Inc., Bothell, WA, United States (U.S. corporation)

PI US 6361940 B1 20020326

AI US 1998-53831 19980401 (9)

RLI Continuation-in-part of Ser. No. US 1997-2051, filed on 31 Dec 1997, now abandoned Continuation-in-part of Ser. No. US 1997-933924, filed on 23 Sep 1997, now abandoned

PRAI US 1996-26621P 19960924 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Riley, Jezia

LREP Seed Intellectual Property Law Group PLLC

CLMN Number of Claims: 97 ECL Exemplary Claim: 1

DRWN 33 Drawing Figure(s); 30 Drawing Page(s)

LN.CNT 6301

Compositions and methods are provided for increasing the specificity of AB a probe nucleic acid for a target nucleic acid in a hybridization solution. An abasic residue, deoxyNebularine residue, or a hybotrope is used to increase specificity. A method is provided for identifying useful hybotropes, including salts, water miscible organic solvents, aprotic solvents and organic solvents, on the basis of enthalpy considerations. Hybotropic hybridization and modified oligonucleotides may be used in amplification reactions, such as PCR, sequence analysis methods, and genomic screening methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 2 USPATFULL L42002:43173 USPATFULL AN ΤI

Methods for preparing conjugates

Dellinger, Douglas J., Sunnyvale, CA, UNITED STATES TN Myerson, Joel, Berkeley, CA, UNITED STATES Fulcrand, Geraldine, Sunnyvale, CA, UNITED STATES Ilsley, Diane D., San Jose, CA, UNITED STATES

US 2002025539 20020228 PΙ Α1 US 2001-981580 A1 20011017 (9) ΑI

Division of Ser. No. US 1999-397526, filed on 16 Sep 1999, PENDING RLI

DTUtility

FS APPLICATION

AGILENT TECHNOLOGIES, INC., Legal Department, DL429, Intellectual LREP Property Administration, P. O. Box 7599, Loveland, CO, 80537-0599

CLMN Number of Claims: 45 Exemplary Claim: 1 ECL DRWN 2 Drawing Page(s)

LN.CNT 1750

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods are disclosed for conjugating one moiety to another moiety. In the method the moieties are reacted with one another in a protic solvent. Reaction between the moieties and the protic solvent during the conjugating is negligible or reversible. A stable bond is formed between the moieties to produce a product that is not subject to .beta.-elimination at elevated pH. Usually, one of the moieties comprises an unsaturation between two carbon atoms. One of the carbon atoms is or becomes an electrophile during the conjugating. The other of the moieties comprises a functionality reactive with the electrophile carbon atom to form a product that comprises the unsaturation. Compounds comprising both of the moieties as well as precursor molecules are also disclosed. Methods are also disclosed for determining an analyte in a sample employing compounds as described above.

```
=> s l1 and monomethoxytrityl?
            80 L1 AND MONOMETHOXYTRITYL?
=> s 16 and tag
            23 L6 AND TAG
L7
=> s 17 not 14
            21 L7 NOT L4
=> dup rem 18
PROCESSING COMPLETED FOR L8
             21 DUP REM L8 (0 DUPLICATES REMOVED)
=> d 19 bib abs 1-21
     ANSWER 1 OF 21 USPATFULL
L9
ΑN
       2002:272783 USPATFULL
       Polynucleotide sequence assay
TI
       Bi, Wanli, San Ramon, CA, UNITED STATES
IN
       Livak, Kenneth J., San Jose, CA, UNITED STATES
       Bloch, Will, White Salmon, WA, UNITED STATES
PΙ
       US 2002150904
                          A1
                               20021017
       US 2001-898323
AΙ
                          A1
                               20010703 (9)
PRAI
       US 2000-216514P
                           20000703 (60)
ΤП
       Utility
       APPLICATION
FS
       PATTI SELAN, PATENT ADMINISTRATOR, APPLIED BIOSYSTEMS, 850 LINCOLN
LREP
       CENTRE DRIVE, FOSTER CITY, CA, 94404
CLMN
       Number of Claims: 158
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 2135
       Disclosed are methods for detecting or quantifying one or more target
AΒ
       polynucleotide sequences in a sample. In one aspect, a sample is
       contacted with first and second probe pair that are capable of
       hybridizing to a selected target sequence and a corresponding
       complementary sequence, respectively. Probe cleavage and ligation
       results in the formation of ligation products which can be generated in
       an exponential fashion when the target sequence and/or complement are
       present in the sample. In another embodiment, a single probe pair can be
       used to form ligation product in a linear fashion from a complementary
       template. Reagents and kits are also disclosed.
     ANSWER 2 OF 21 USPATFULL
L9
ΑN
       2002:221317 USPATFULL
       Methods and compositions for determining the sequence of nucleic acid
TТ
       molecules
       Ness, Jeffrey Van, Seattle, WA, UNITED STATES
IN
       Tabone, John C., Bothell, WA, UNITED STATES
       Howbert, J. Jeffry, Bellevue, WA, UNITED STATES
       Mulligan, John T., Seattle, WA, UNITED STATES
PΙ
       US 2002119456
                          Α1
                               20020829
       US 2001-855999
AΤ
                          Α1
                               20010514 (9)
       Continuation of Ser. No. US 1997-898180, filed on 22 Jul 1997, PATENTED
RLI
       Continuation-in-part of Ser. No. US 1997-786835, filed on 22 Jan 1997,
       ABANDONED
PRAI
       US 1996-10462P
                           19960123 (60)
DT
       Utility
FS
       APPLICATION
       SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
LREP
       SEATTLE, WA, 98104-7092
```

CLMN

Number of Claims: 58

ECL Exemplary Claim: 1 DRWN 25 Drawing Page(s) LN.CNT 6401 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Methods and compounds, including compositions therefrom, are provided AΒ for determining the sequence of nucleic acid molecules. The methods permit the determination of multiple nucleic acid sequences simultaneously. The compounds are used as tags to generate tagged nucleic acid fragments which are complementary to a selected target nucleic acid molecule. Each tag is correlative with a particular nucleotide and, in a preferred embodiment, is detectable by mass spectrometry. Following separation of the tagged fragments by sequential length, the tags are cleaved from the tagged fragments. In a preferred embodiment, the tags are detected by mass spectrometry and the sequence of the nucleic acid molecule is determined therefrom. The individual steps of the methods can be used in automated format, e.g., by the incorporation into systems. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L9 ANSWER 3 OF 21 USPATFULL AN 2002:108823 USPATFULL TIMass spectrometric detection of polypeptides Little, Daniel, Boston, MA, United States IN Koster, Hubert, La Jolla, CA, United States Higgins, G. Scott, Paisley, UNITED KINGDOM Lough, David, Berwickshire, UNITED KINGDOM PA Sequenom, Inc., San Diego, CA, United States (U.S. corporation) PΙ US 6387628 B1 20020514 ΑI US 2000-664977 20000918 (9) Division of Ser. No. US 1998-146054, filed on 2 Sep 1998 RLI Continuation-in-part of Ser. No. US 1997-922201, filed on 2 Sep 1997 DTUtility FS GRANTED EXNAM Primary Examiner: Campbell, Eggerton A. Heller Ehrman White & McAuliffe LREP Number of Claims: 38 CLMN ECL Exemplary Claim: 1 DRWN 3 Drawing Figure(s); 3 Drawing Page(s) LN.CNT 4716 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A process for determining the identity of a target polypeptide using mass spectroscopy is provided. Depending on the target polypeptide to be identified, a process as disclosed can be used, for example, to diagnose a genetic disease or chromosomal abnormality, a predisposition to a disease or condition, or infection by a pathogenic organism; or for determining identity or heredity. Kits for performing the disclosed processes also are provided. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 4 OF 21 USPATFULL L9 2002:1324 USPATFULL ΑN ΤI Methods for the preparation of conjugated oligomers IN Manoharan, Muthiah, Carlsbad, CA, United States PΑ ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation) PΙ US 6335437 B1 20020101 ΑI US 1998-149156 19980907 (9) DT Utility FS GRANTED

Primary Examiner: Wilson, James O.; Assistant Examiner: Owens, Howard

Woodcock Washburn Kurtz Mackiewicz & Norris LLP

EXNAM

LREP

```
Number of Claims: 41
       Exemplary Claim: 1
ECL
       0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1645
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides novel methods for preparing
       oligonucleotide conjugates using a novel electrophilic haloacetyl
       linker. Novel compounds and intermediates are also disclosed.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 5 OF 21 USPATFULL
L9
ΑN
       2001:214828 USPATFULL
ΤI
       Mass spectrometric detection of polypeptides
TN
       Little, Daniel, Boston, MA, United States
       Koster, Hubert, La Jolla, CA, United States
       Higgins, G. Scott, Paisley, United Kingdom
       Lough, David, Berwickshire, United Kingdom
       Sequenom, Inc., San Diego, CA, United States (U.S. corporation)
PA
PΙ
       US 6322970
                               20011127
                          В1
       US 1998-146054
ΑI
                               19980902 (9)
RLI
       Continuation-in-part of Ser. No. US 1997-922201, filed on 2 Sep 1997
DT
       Utility
       GRANTED
FS
EXNAM Primary Examiner: Campbell, Eggerton A.
       Seidman, Stephanie L. Heller Ehrman White & McAuliffe LLP
LREP
       Number of Claims: 95
CLMN
       Exemplary Claim: 1
ECL
       3 Drawing Figure(s); 3 Drawing Page(s)
DRWN
LN.CNT 4786
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A process for determining the identity of a target polypeptide using
       mass spectroscopy is provided. Depending on the target polypeptide to be
       identified, a process as disclosed can be used, for example, to diagnose
       a genetic disease or chromosomal abnormality, a predisposition to a
       disease or condition, or infection by a pathogenic organism; or for
       determining identity or heredity. Kits for performing the disclosed
       processes also are provided.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L9
     ANSWER 6 OF 21 USPATFULL
       2001:202419 USPATFULL
AN
ΤI
       Polymerase extension at 3' terminus of PNA-DNA chimera
       Egholm, Michael, Wayland, MA, United States
IN
       Chen, Caifu, Brookline, MA, United States
PΑ
       Applera Corporation, Foster City, CA, United States (U.S. corporation)
ΡI
       US 6316230
                       B1 20011113
                               19990813 (9)
AΙ
       US 1999-373845
       Utility
DT
FS
       GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP
       Andrus, Alex
       Number of Claims: 43
CLMN
ECL
       Exemplary Claim: 1
       20 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 1634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides methods and a kit for primer extension of PNA-DNA
       chimera from template nucleic acids using polymerases, nucleotide
       5'-triphosphates, and primer extension reagents. Structural requirements
       of the chimera for primer extension include 5 to 15 contiguous PNA
       monomer units, 3 or more contiguous nucleotides, and a 3' hydroxyl
```

terminus. The chimera and/or a nucleotide is labelled with fluorescent

dyes or other labels. The methods include DNA sequencing, DNA fragment analysis, reverse transcription, mini-sequencing, chromosome labelling, amplification, and single nucleotide polymorphism (SNP) detection.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
1.9
     ANSWER 7 OF 21 USPATFULL
       2001:196797 USPATFULL
AN
       Methods and compositions for determining the sequence of nucleic acid
TΤ
       molecules
       Van Ness, Jeffrey, Seattle, WA, United States
IN
       Tabone, John C., Bothell, WA, United States
       Howbert, J. Jeffry, Bellevue, WA, United States
       Mulligan, John T., Seattle, WA, United States
       Qiagen Genomics, Inc., Bothell, WA, United States (U.S. corporation)
PA
PΙ
       US 6312893
                          В1
                               20011106
       US 1997-898180
                               19970722 (8)
ΑI
       Continuation-in-part of Ser. No. US 1997-786835, filed on 22 Jan 1997,
RLI
       now abandoned
       US 1996-10462P
                           19960123 (60)
PRAI
DT
       Utility
FS
       GRANTED
EXNAM
      Primary Examiner: Houtteman, Scott W.
       Seed Intellectual Property Law Group PLLC
CLMN
      Number of Claims: 58
ECL
       Exemplary Claim: 1
DRWN
       46 Drawing Figure(s); 42 Drawing Page(s)
LN.CNT 6431
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and compounds, including compositions therefrom, are provided
       for determining the sequence of nucleic acid molecules. The methods
       permit the determination of multiple nucleic acid sequences
       simultaneously. The compounds are used as tags to generate tagged
       nucleic acid fragments which are complementary to a selected target
       nucleic acid molecule. Each tag is correlative with a
       particular nucleotide and, in a preferred embodiment, is detectable by
       mass spectrometry. Following separation of the tagged
       fragments by sequential length, the tags are cleaved from the tagged
       fragments. In a preferred embodiment, the tags are detected by
       mass spectrometry and the sequence of the nucleic acid
       molecule is determined therefrom. The individual steps of the methods
```

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

systems.

```
L9
     ANSWER 8 OF 21 USPATFULL
AN
       2001:29748 USPATFULL
ΤI
       Aminooxy-modified oligonucleotide synthetic intermediates
IN
       Cook, Phillip Dan, Lake San Marcos, CA, United States
       Manoharan, Muthiah, Carlsbad, CA, United States
       Kawasaki, Andrew Mamoru, Oceanside, CA, United States
PA
       ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S.
       corporation)
PΙ
      US 6194598
                          B1
                               20010227
AΙ
      US 2000-477902
                               20000105 (9)
RLI
      Division of Ser. No. US 1998-16520, filed on 30 Jan 1998
PRAI
      US 1997-37143P 19970214 (60)
      Utility
DT
FS
      Granted
EXNAM
      Primary Examiner: Gitomer, Ralph; Assistant Examiner: Crane, L. E.
LREP
      Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN
      Number of Claims: 6
ECL
      Exemplary Claim: 1
```

can be used in automated format, e.g., by the incorporation into

29 Drawing Figure(s); 29 Drawing Page(s) LN.CNT 3095 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Nucleotide compositions containing aminooxy moieties are provided. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the oligonucleotide is modified to include an aminooxy moiety. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L9 ANSWER 9 OF 21 USPATFULL 2001:4883 USPATFULL AN Aminooxy-modified oligonucleotides and methods for making same TΙ Manoharan, Muthiah, Carlsbad, CA, United States IN Cook, Phillip Dan, Lake San Marcos, CA, United States Prakash, Thazha P., Carlsbad, CA, United States Kawasaki, Andrew M., Oceanside, CA, United States ISIS Pharmaceuticals Inc., Carlsbad, CA, United States (U.S. PA corporation) US 6172209 PΙ В1 20010109 US 1998-130973 19980807 (9) ΑI Continuation-in-part of Ser. No. US 1998-16520, filed on 30 Jan 1998 RLI PRAI US 1997-37143P 19970214 (60) рπ Patent Granted FS EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Crane, Larson Woodcock Washburn Kurtz Mackiewicz & Norris LLP LREP CLMN Number of Claims: 37 Exemplary Claim: 1 ECL 29 Drawing Figure(s); 29 Drawing Page(s) DRWN LN.CNT 3602 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Oligonucleotides and other macromolecules are provided which have AB increased nuclease resistance, substituent groups (such as 2'-aminooxy groups) for increasing binding affinity to complementary strand, and subsequences of 2'-deoxy-erythro-pentofuranosyl nucleotides that activate RNase H. Such oligonucleotides and macromolecules are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L9 ANSWER 10 OF 21 USPATFULL AN 2000:146099 USPATFULL TIDNA sequencing by mass spectrometry via exonuclease degradation Koster, Hubert, Concord, MA, United States IN PΑ Sequenom, Inc., San Diego, CA, United States (U.S. corporation) ΡI US 6140053 20001031 AΙ US 1998-160671 19980925 (9) Continuation of Ser. No. US 1996-744590, filed on 6 Nov 1996 which is a RLI continuation-in-part of Ser. No. US 1995-388171, filed on 10 Feb 1995, now patented, Pat. No. US 5622824 which is a continuation of Ser. No. US 1993-34738, filed on 19 Mar 1993, now abandoned DTUtility FS Granted EXNAM Primary Examiner: Marschel, Ardin H. LREP Seidman, Stephanie L. Heller Ehrman White & McAuliffe CLMN Number of Claims: 44

ECL

Exemplary Claim: 1

34 Drawing Figure(s); 29 Drawing Page(s) DRWN LN.CNT 2292 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention provides fast and highly accurate mass spectrometer based processes for directly sequencing a target nucleic acid (or fragments generated from the target nucleic acid), which by means of protection, specificity of enzymatic activity, or immobilization, are unilaterally degraded in a stepwise manner via exonuclease digestion and the nucleotides, derivatives or truncated sequences detected by mass spectrometry. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 11 OF 21 USPATFULL L92000:132005 USPATFULL AN 2'-O-aminooxy-modified oligonucleotides TICook, Phillip Dan, Escondido, CA, United States Manoharan, Muthiah, Carlsbad, CA, United States IN Kawasaki, Andrew Mamoru, Oceanside, CA, United States ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. PA corporation) US 6127533 20001003 PΙ US 1998-16520 19980130 (9) ΑΤ PRAI US 1997-37143P 19970214 (60) DТ Utility FS Granted EXNAM Primary Examiner: Crane, L. Eric Woodcock Washburn Kurtz Mackiewicz & Norris LLP LREP Number of Claims: 15 CLMN ECL Exemplary Claim: 1 29 Drawing Figure(s); 29 Drawing Page(s) DRWN LN.CNT 3559 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Nucleotide compositions containing aminooxy moieties are provided. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the oligonucleotide is modified to include an aminooxy moiety. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 12 OF 21 USPATFULL L9 2000:74089 USPATFULL ANDNA sequencing by mass spectrometry via exonuclease TIdegradation Koster, Hubert, Concord, MA, United States IN Sequenom, Inc., San Diego, CA, United States (U.S. corporation) PA 20000613 PΙ US 6074823 19961106 (8) US 1996-744590 ΑI Continuation-in-part of Ser. No. US 1995-388171, filed on 10 Feb 1995, RLI now patented, Pat. No. US 5622824, issued on 22 Apr 1997 which is a continuation of Ser. No. US 1993-34738, filed on 19 Mar 1993, now abandoned DTUtility Granted FS Primary Examiner: LeGuyader, John L.; Assistant Examiner: Larson, Thomas EXNAM Seidman, Stephanie L. Heller Ehrman White & McAuliffe LREP Number of Claims: 23 CLMN Exemplary Claim: 1 ECL 35 Drawing Figure(s); 29 Drawing Page(s) DRWN LN.CNT 1676

The invention provides fast and highly accurate mass spectrometer based processes for directly sequencing a target nucleic acid (or fragments generated from the target nucleic acid), which by means of protection, specificity of enzymatic activity, or immobilization, are unilaterally degraded in a stepwise manner via exonuclease digestion and the nucleotides, derivatives or truncated sequences detected by mass spectrometry.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 13 OF 21 USPATFULL
AN
       2000:21384 USPATFULL
       Methods and compositions for enhancing sensitivity in the analysis of
TТ
       biological-based assays
       Ness, Jeffrey Van, Seattle, WA, United States
IN
       Tabone, John C., Bothell, WA, United States
       Howbert, J. Jeffry, Bellevue, WA, United States
       Mulligan, John T., Seattle, WA, United States
       Rapigene, Inc., Bothell, WA, United States (U.S. corporation)
PA
       US 6027890
                               20000222
PΙ
       US 1997-898501
                               19970722 (8)
ΑI
       Continuation-in-part of Ser. No. US 1997-787521, filed on 22 Jan 1997,
RLI
       now abandoned
PRAI
       US 1996-10436P
                           19960123 (60)
       US 1996-15402P
                           19960321 (60)
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Houtteman, Scott W.
      Seed and Berry LLP
LREP
CLMN
      Number of Claims: 72
ECL
       Exemplary Claim: 1
DRWN
       19 Drawing Figure(s); 19 Drawing Page(s)
LN.CNT 6333
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods are provided for detecting the binding of a first member to a
```

Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

```
ANSWER 14 OF 21 USPATFULL
1.9
ΔN
       2000:10008 USPATFULL
TΤ
       Synthetic Haemophilus influenzae conjugate vaccine
       Chong, Pele, Richmond Hill, Canada
TN
       Kandil, Ali, Willowdale, Canada
       Sia, Charles, Thornhill, Canada
       Klein, Michel, Willowdale, Canada
       Connaught Laboratories Limited, Willowdale, Canada (non-U.S.
PΑ
       corporation)
                               20000125
       US 6018019
PΤ
       WO 9315205 19930805
       US 1994-256839
                               19941003 (8)
AΤ
       WO 1993-CA41
                               19930203
                               19941003 PCT 371 date
                               19941003 PCT 102(e) date
```

GB 1992-2219 19920203 PRAI Utility DTFS Granted EXNAM Primary Examiner: Stucker, Jeffrey Sim & McBurney LREP CLMN Number of Claims: 5 Exemplary Claim: 1 ECL 28 Drawing Figure(s); 28 Drawing Page(s) DRWN LN.CNT 2070 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides immunogenic synthetic peptides which are useful alone or in PRP-conjugates in vaccines against Hemophilus influenza infection. Modifications are possible within the scope of the invention. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 15 OF 21 USPATFULL L9 1999:132241 USPATFULL ΑN Synthesis of polyribosylribitol phosphate oligosaccharides ΤI Chong, Pele, Richmond Hill, Canada Kandil, Ali, Willowdale, Canada TN Sia, Charles, Thornhill, Canada Klein, Michel, Willowdale, Canada Connaught Laboratories Limited, North York, Canada (non-U.S. PA corporation) US 5972349 19991026 PΙ US 1995-475985 19950607 (8) ΑI Continuation of Ser. No. US 256839 RLI GB 1992-2219 19920302 PRAI Utility DΤ Granted FS EXNAM Primary Examiner: Marschel, Ardin H. LREP Sim & McBurney Number of Claims: 8 CLMN ECL Exemplary Claim: 1 DRWN 28 Drawing Figure(s); 28 Drawing Page(s) LN.CNT 2097 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Polyribosylribitol phosphate oligosaccharides are produced in a multistep process. The compound of the formula: ##STR1## wherein R.sub.1 is a first protecting group and R.sub.2 is a second protecting group, is coupled to a solid polyethylene glycol monomethyl ether (PEG) support. Following removal of the first protecting group, the resulting compound is coupled with a repeating unit for chain elongation of the formula: ##STR2## The protecting group is removed from the phosphorus atom and the steps of removing the first protecting group, coupling with the repeating unit is repeated until the desired number of repeating units in the oligomer has been terminated. The oligomer then is terminated with a chain terminating molecule of the formula: ##STR3## wherein m is an integer and R.sub.3 is a third protecting group. The resulting PEG-bound protected oligomer is a new product and the oligomer may be cleaved from the support and processed to provide a chemically-reactive functional group for binding the polysaccharide oligomer to a carrier molecule.

```
L9 ANSWER 16 OF 21 USPATFULL

AN 1999:21984 USPATFULL

TI DNA sequencing by mass spectrometry via exonuclease degradation

IN Koster, Hubert, Concord, MA, United States

PA Sequenom, Inc., San Diego, CA, United States (U.S. corporation)
```

```
US 5872003
                               19990216
PΙ
                               19950530 (8)
       US 1995-453499
ΑI
       Division of Ser. No. US 1995-388171, filed on 10 Feb 1995, now patented,
RLI
       Pat. No. US 5622824 which is a continuation of Ser. No. US 1993-34738,
       filed on 19 Mar 1993, now abandoned
DT
       Utility
FS
       Granted
       Primary Examiner: Redding, David A.
EXNAM
       Foley, Hoag & Eliot LLP, Arnold, Esq., Beth E.
LREP
       Number of Claims: 21
CLMN
ECL
       Exemplary Claim: 1
DRWN
       15 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1652
       Methods for determining the sequence of nucleic acids by cleaving the
AB
       nucleic acid unilaterally from a first end with an exonuclease activity
       to sequentially release individual nucleotides, identifying each of the
       sequentially release nucleotides by mass spectrometry
       , and determining the sequence of the nucleic acid from the identified
       nucleotides are disclosed. The method is amenable to multiplexing for
       simulataneously determining more than one nuleic acid sequence.
L9
     ANSWER 17 OF 21 USPATFULL
ΑN
       1998:159699 USPATFULL
TI
       DNA sequencing by mass spectrometry via exonuclease
       degradation
       Koster, Hubert, Concord, MA, United States
IN
       Sequenon, Inc., San Diego, CA, United States (U.S. corporation)
PA
PI
       US 5851765
                               19981222
       US 1995-454527
ΑI
                               19950530 (8)
       Division of Ser. No. US 1995-388171, filed on 10 Feb 1995, now patented,
RLI
       Pat. No. US 5622824 which is a continuation of Ser. No. US 1993-34738,
       filed on 19 Mar 1993, now abandoned
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Horlick, Kenneth R.; Assistant Examiner: Tung, Joyce
       Arnold, Beth E.Foley, Hoag&Eliot LLP
LREP
CLMN
       Number of Claims: 28
ECL
       Exemplary Claim: 1
DRWN
       15 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 1765
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Methods for determining the sequence of nucleic acids by cleaving the
       nucleic acid unilaterally from a first end with an exonuclease activity
       to sequentially release individual nucleotides, identifying each of the
       sequentially release nucleotides by mass spectrometry
       , and determining the sequence of the nucleic acid from the identified
       nucleotides are disclosed. The method is amenable to multiplexing for
       simulataneously determining more than one nuleic acid sequence.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 18 OF 21 USPATFULL
L9
AN
       1998:134811 USPATFULL
TI
       Oligonucleotide sizing using cleavable primers
IN
       Monforte, Joseph Albert, Berkeley, CA, United States
       Becker, Christopher Hank, Menlo Park, CA, United States
       Shaler, Thomas Andrew, San Francisco, CA, United States
       Pollart, Daniel Joseph, Menlo Park, CA, United States
PA
       SRI International, Menlo Park, CA, United States (U.S. corporation)
PΙ
       US 5830655
                               19981103
ΑI
       US 1996-639363
                               19960426 (8)
RLI
       Continuation-in-part of Ser. No. US 1995-445751, filed on 22 May 1995
DT
       Utility
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FS Granted EXNAM Primary Examiner: Horlick, Kenneth R.; Assistant Examiner: Tung, Joyce Evans, Susan T., Fabian, Gary R. LREP Number of Claims: 18 CLMN Exemplary Claim: 1 ECL DRWN 59 Drawing Figure(s); 24 Drawing Page(s) LN.CNT 3411 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides modified oligonucleotide primers designed to incorporate a cleavable moiety so that a 3' portion of the primer (linked to an extension product) can be released from an upstream 5' portion of the primer. Upon selective cleavage of the cleavable site, primer extension products that contain about five or fewer base pairs of the primer sequence are released, to provide more useful sizing and sequence information per fragment than extension products containing the entire primer. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 19 OF 21 USPATFULL L9 97:120460 USPATFULL ΑN Oligonucleotide sizing using immobilized cleavable primers TI IN Monforte, Joseph Albert, Berkeley, CA, United States Becker, Christopher Hank, Menlo Park, CA, United States Shaler, Thomas Andrew, San Francisco, CA, United States Pollart, Daniel Joseph, Menlo Park, CA, United States SRI International, Menlo Park, CA, United States (U.S. corporation) PΑ US 5700642 19971223 PΙ US 1995-445751 19950522 (8) ΑI DT Utility FS Granted EXNAM Primary Examiner: Campbell, Eggerton A. Evans, Susan T., Fabian, Gary R. LREP Number of Claims: 19 CLMN Exemplary Claim: 1 ECL DRWN 48 Drawing Figure(s); 14 Drawing Page(s) LN.CNT 2332 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides modified oligonucleotide primers that (i) AB are designed for attachment to a solid support in a manner that does not block the ability to extend the primer from its 3' end, and (ii) incorporate a clearable moiety so that a 3' portion of the primer (linked to an extension product) can be released from an immobilized 5' portion. Upon selective cleavage of the cleavable site, a large portion of the primer fragment remains affixed to the solid support. This enables the release of primer extension products that contain about five or fewer base pairs of the primer sequence, to provide more useful sizing and sequence information per fragment than extension products containing the entire primer. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L9 ANSWER 20 OF 21 USPATFULL 97:96561 USPATFULL ΑN Synthetic Haemophilus influenzae conjugate vaccine TI Chong, Pele, Richmond Hill, Canada IN Kandil, Ali, Willowdale, Canada Sia, Charles, Thornhill, Canada Klein, Michel, Willowdale, Canada Connaught Laboratories Limited, Willowdale, Canada (non-U.S. PA corporation) ÞΤ US 5679352 19971021 US 1995-475989

19950607 (8)

Continuation of Ser. No. US 1994-256839, filed on 3 Oct 1994

AΙ

RLI

GB 1992-2219 19920302 PRAI DTUtility FS Granted EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: Degen, Nancy J. Sim & McBurney LREP Number of Claims: 11 CLMN ECL Exemplary Claim: 1 28 Drawing Figure(s); 28 Drawing Page(s) DRWN LN.CNT 1882 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Synthetic peptides have an amino acid sequence corresponding to at least one antigenic determinant of at least one protein, usually a structural protein, particularly the P1, P2 and P6 protein, of Haemophilus influenzae (Hi), particularly type b, and are used as is, in chimeric T-B form, in lipidated form, linked to a carrier molecule, particularly a synthetic PRP molecule and/or polymerized to form molecular aggregates, in vaccines against Hi. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 21 OF 21 USPATFULL L9 AN 97:33619 USPATFULL ΤI DNA sequencing by mass spectrometry via exonuclease degradation INK oster, Hubert, Concord, MA, United States Sequenom, Inc., Boston, MA, United States (U.S. corporation) PA PΙ US 5622824 19970422 US 1995-388171 ΑI 19950210 (8) Continuation of Ser. No. US 1993-34738, filed on 19 Mar 1993, now RLI abandoned DT Utility FS Granted EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: Wai, Thanda

Lahive & Cockfield, Arnold, Esq., Beth E., DeConti, Jr., Giulio A. LREP

Number of Claims: 28 CLMNECLExemplary Claim: 1

DRWN 15 Drawing Figure(s); 14 Drawing Page(s)

LN.CNT 1719

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods for determining the sequence of nucleic acids by cleaving the nueleic acid unilaterally from a first end with an exonuclease activity to sequentially release individual nucleotides, identifying each of the sequentially release nucleotides by mass spectrometry , and determining the sequence of the nucleic acid from the identified nucleotides are disclosed. The method is amenable to multiplexing for

simultaneously determining more than one nucleic acid sequence.